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Sanofi to advance novel coronavirus vaccine

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Work with Biomedical Advanced Research and Development Authority (BARDA) will utilize Sanofiâ??s well-established recombinant technology platform to expedite a potential COVID-19 vaccine



Sanofi Pasteur, the vaccines global business unit of Sanofi, will leverage previous development work for a SARS vaccine which may unlock a fast path forward for developing a COVID-19 vaccine. Sanofi will collaborate with the Biomedical Advanced Research and Development Authority (BARDA), part of the Office of the Assistant Secretary for Preparedness and Response, expanding the company's long-standing partnership with BARDA.

COVID-19 belongs to a family of coronaviruses that can cause respiratory disease. In late 2002, the SARS (severe acute respiratory syndrome) coronavirus emerged and then largely disappeared by 2004. Sanofi plans to further investigate an advanced pre-clinical SARS vaccine candidate that could protect against COVID-19.

"Addressing a global health threat such as this newest coronavirus is going to take a collaborative effort, which is why we are working with BARDA to quickly advance a potential vaccine candidate," said David Loew, Global Head of Vaccines at Sanofi. "While we are lending our expertise where possible, we believe the collaboration with BARDA may provide the most meaningful results in protecting the public from this latest outbreak

Sanofi will use its recombinant DNA platform to produce a 2019 novel coronavirus vaccine candidate. The recombinant technology produces an exact genetic match to proteins found on the surface of the virus. The DNA sequence encoding this antigen will be combined into the DNA of the baculovirus expression platform, the basis of Sanofi's licensed recombinant influenza product, and used to rapidly produce large quantities of the coronavirus antigen which will be formulated to stimulate the immune system to protect against the virus.

"Emerging global health threats like the 2019 novel coronavirus require a rapid response," said BARDA Director Rick A. Bright, Ph.D. "By expanding our partnership with Sanofi Pasteur and leveraging a licensed recombinant vaccine platform, we hope to speed development of a vaccine candidate to protect against a new virus."

In non-clinical studies, the SARS vaccine candidate was immunogenic and afforded partial protection as assessed in animal challenge models. This development work by Protein Sciences (acquired by Sanofi in 2017) provides a head start in expediting a COVID-19 vaccine. Additionally, since there is a licensed vaccine based on this platform this will allow for research and materials to be produced relatively quickly for clinical testing. Sanofi's platform also has the potential to manufacture large quantities of the vaccine candidate.

This agreement with BARDA marks another milestone in Sanofi's ongoing contributions to help fight public health threats. Sanofi continues to actively explore potential opportunities where the company's deep vaccine experience and innovative technologies may contribute to addressing the coronavirus public health situation, including sharing Sanofi's vaccine research and development experience with the Coalition for Epidemic Preparedness Innovations.

In December 2019, Sanofi also entered into an agreement with BARDA to establish state of the art facilities in the U.S. for the sustainable production of an adjuvanted recombinant vaccine for use in the event of an influenza pandemic and based on the same technology platform that will be used for the COVID-19 program.